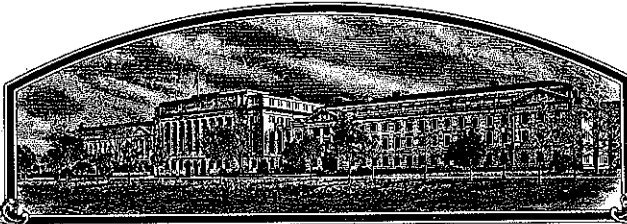


No.

9300229



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

AgriPro Biosciences Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS SEED OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS PERMITTED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'Boone'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this *31st* day of *May* in the year of our Lord one thousand nine hundred and ninety-four.

Attest:

Kenneth H. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Mike Essy
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) AgriPro Biosciences Inc. HybriTech US, a Monsanto Company		2. TEMPORARY DESIGNATION 88M*2451 CGM 01 Jun 1998	3. VARIETY NAME Boone
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) East Eight Street, P.O. Box 411 Brookston, Indiana 47923		5. PHONE (Include area code) (317) 563-3111 IN (913) 384-4940 KS (303) 532-3721 CO	FOR OFFICIAL USE ONLY PVPO NUMBER 9300229
6. GENUS AND SPECIES NAME Triticum aestivum	7. FAMILY NAME (Botanical) Gramineae		FILING DATE June 7, 1993 TIME <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.
8. KIND NAME Soft Red Winter Wheat	9. DATE OF DETERMINATION July 1990		AMOUNT FOR FILING \$2,325.00 DATE June 7, 1993 FEE RECEIVED \$275.00 DATE May 3, 1994
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation			12. DATE OF INCORPORATION February 10, 1989
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware			13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS R.E. Heiner 6700 Antioch Shawnee Mission, Kansas 66204 (913) 384-4940 Mark J. Messmer HybriTech US 5912 North Meridian Wichita KS 67204 Koy Miskin or C. Bruns *(806 N. 2nd St. East 8th Street Brookston, Indiana 47923 (317) 563-3111 316-755-7707 316-755-0072 Please send information requests to C. Bruns
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED			
a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)			
b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement.			
c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)			
d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of Variety.			
e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership. Exhibit F, Quality & Agronomic Data			
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) <input checked="" type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input type="checkbox"/> No			
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input checked="" type="checkbox"/> Foundation <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified	
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <input type="checkbox"/> Yes (If "Yes," give date) <input checked="" type="checkbox"/> No			
19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No			
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			

SIGNATURE OF APPLICANT

Robert E Heiner

DATE

5-25-93

SIGNATURE OF APPLICANT

DATE

9300229

EXHIBIT A.

ORIGIN AND BREEDING HISTORY OF BOONE

Parentage: Tecumsch/Hybrid 481

Date of last Cross: Approximately 1979

Breeding History: AgriPro Biosciences Inc. acquired cross 79642 from the University of Guelph as an F2 population in 1983. It was grown in a bulk in 1984, the tall plants were mowed off and the remaining plants were harvested in bulk. This seed was cleaned several times on the gavity table and the very best seed was planted as an F3 thin seeded bulk in 1985. Thirty-three heads were selected from this bulk and grown as single seed descent in the 1986 greenhouse. Heads were harvested from twenty-four of these plants and planted in single head rows (Pre-Y1 rows) in 1986-1987. In 1988, a single plot was selected based on high yield performance, superior straw strength, disease resisitance and milling and baking properties. This plot was designated 88M*2451. It has been in advanced yield testing from 1988 thru 1991. And was in the 1991 Uniform Eastern Nursery.

In 1990, 60 head-rows and a .2 acre breeder seed increase were grown in Berthoud, Colorado, which produced 700 pounds of breeder seed. An additional breeder seed increase was grown in 1991 in Arkansas which produced 8,650 pounds of Foundation seed.

Boone has been uniform and stable since 1991. Less than 0.5% of the plants were rogued from the original breeder seed field in 1990. The majority of the rogued variant plants consisted of approximately 90% taller awned wheat plants and approximately 10% awnless wheat plants. Up to 1% total variant plants may be encountered in subsequent generations.

EXHIBIT B.**NOVELTY STATEMENT**

Boone is most similar to the soft red winter wheat Pioneer 2553. However, it can be distinguished by the following morphological characteristics:

- Boone has a midlong glume length. Pioneer 2553 has a short glume length, (see statistical data following pages).
- Boone has a green plant color at boot stage as recorded in Berthoud, Colorado for the following years: 1990, 1991, 1992, (R.H.S. Colour Chart number 137B). Pioneer 2553 has a blue-green plant color at boot stage as recorded in Berthoud, Colorado for the following years: 1986, 1987, 1988, 1989, 1990, 1991, 1992, (R.H.S. Colour Chart number 133C).

'Boone'

FORM APPROVED: CMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

AgriPro Biosciences Inc.

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

Box 411 Brookston, IN 47923

FOR OFFICIAL USE ONLY

PVPO NUMBER

9300229

VARIETY NAME OR TEMPORARY
DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g., or) when number is either 99 or less or 9 or less.

1. KIND:

1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:

1 = SPRING 2 = WINTER 3 = OTHER (Specify) 1 = SOFT 3 = OTHER (Specify)
2 = HARD

1 = WHITE 2 = RED 3 = OTHER (Specify)

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

FIRST FLOWERING Jan. 1st LAST FLOWERING

4. MATURITY (50% Flowering):

NO. OF DAYS EARLIER THAN 1 = ARTHUR 2 = SCOUT 3 = CHRIS
 NO. OF DAYS LATER THAN 4 = LEMHI 5 = NUGAINES 6 = LEEDS 7 = Caldwell

5. PLANT HEIGHT (From soil level to top of head):

CM. HIGH Same height as Caldwell

CM. TALLER THAN

CM. SHORTER THAN 1 = ARTHUR 2 = SCOUT 3 = CHRIS
4 = LEMHI 5 = NUGAINES 6 = LEEDS

6. PLANT COLOR AT BOOTING (See reverse):

1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHUR COLOR:

1 = YELLOW 2 = PURPLE

8. STEM:

Anthocyanin: 1 = ABSENT 2 = PRESENT

Waxy bloom: 1 = ABSENT 2 = PRESENT

Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT

Internodes: 1 = HOLLOW 2 = SOLID

NO. OF NOCES (Originating from node above ground)

CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:

Anthocyanin: 1 = ABSENT 2 = PRESENT

Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:

Flag leaf at booting stage: 1 = ERECT to 90 degree angle from stem 2 = RECURVED 3 = OTHER (Specify):

Flag leaf: 1 = NOT TWISTED 2 = TWISTED

Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT

Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT

MM. LEAF WIDTH (First leaf below flag leaf)

CM. LEAF LENGTH (First leaf below flag leaf)

FORM GR-470-6 (REVERSE)

11. HEAD:

☐ 3 Density: 1 = LAX 2 = DENSE 3 = MIDDENSE ☐ 1 Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify) _____

☐ 4 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

☐ 1 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED
5 = BROWN 6 = BLACK 7 = OTHER (Specify) _____

☐ 8 ☐ 5 CM. LENGTH ☐ 0 ☐ 9 MM. WIDTH

12. GLUMES AT MATURITY:

☐ 2 Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.) ☐ 1 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = WIDE (CA. 4 mm.)

☐ 2 Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE ☐ 3 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACCUMULATE ^{short}

13. COLEOPTILE COLOR:

☐ 2 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

☐ 2 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

☐ 2 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

☐ 3 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL ☐ 1 Cheek: 1 = ROUNDED 2 = ANGULAR

☐ 2-3 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG ☐ 1 Brush: 1 = NOT COLLARED 2 = COLLARED

☐ --- Phenol reaction (See instructions): 1 = IVORY, 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

☐ 3 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____

☐ 6 ☐ 8 MM. LENGTH ☐ 3 ☐ 1 MM. WIDTH ☐ 4 ☐ 0 GM. PER 1000 SEEDS

17. SEED CREASE:

☐ 1 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI' ☐ 1 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 3 = Moderately Susceptible 4 = Moderately Resistant

☐ 0 STEM RUST (Races) ☐ 4 LEAF RUST (Races) field races ☐ 0 STRIPE RUST (Races) ☐ 0 LOOSE SMUT
☐ 4 POWDERY MILDEW ☐ 0 BUNT ☐ 4 OTHER (Specify) BYDV, Soilborne Mosaic Virus

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 3 = Moderately Susceptible 4 = Moderately Resistant

☐ 0 SAWFLY ☐ 0 APHID (Bydv.) ☐ 0 GREEN BUG ☐ 0 CEREAL LEAF BEETLE
☐ 0 OTHER (Specify) _____ HESSIAN FLY RACES: ☐ 0 GP ☐ 0 A ☐ 0 B ☐ 0 C
☐ 0 D ☐ 0 E ☐ 0 F ☐ 0 G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Pioneer 2553	Seed size	Pioneer 2553
Leaf size	Pioneer 2553	Seed shape	Pioneer 2553
Leaf color	Traveler	Coleoptile elongation	Pioneer 2553
Leaf carriage	Traveler	Seedling elongation	Pioneer 2553

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.T. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Their Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) T.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, Contribution No. 23 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

ANALYSIS OF VARIANCE FOR GLUME LENGTH
Boone vs. Pioneer 2553
(1991)

9300229

TOTAL OBSERVATIONS: 50

	VAR	GLUMLENG
N OF CASES	50	50
MINIMUM	1.000	6.400
MAXIMUM	2.000	8.700
MEAN	1.500	7.552
STANDARD DEV	0.505	0.598

THE FOLLOWING RESULTS ARE FOR:

VAR = Boone

TOTAL OBSERVATIONS: 25

	VAR	GLUMLENG
N OF CASES	25	25
MINIMUM	1.000	7.300
MAXIMUM	1.000	8.700
MEAN	1.000	8.008
STANDARD DEV	0.000	0.368

THE FOLLOWING RESULTS ARE FOR:

VAR = Pioneer 2553

TOTAL OBSERVATIONS: 25

	VAR	GLUMLENG
N OF CASES	25	25
MINIMUM	2.000	6.400
MAXIMUM	2.000	7.800
MEAN	2.000	7.096
STANDARD DEV	0.000	0.400

DEP VAR:GLUMLENG N: 50 MULTIPLE R: 0.771 SQUARED MULTIPLE R: 0.594
ADJUSTED SQUARED MULTIPLE R: 0.585 STANDARD ERROR OF ESTIMATE: 0.385

VARIABLE	COEFFICIENT	STD ERROR	STD COEF TOLERANCE	T	P(2 TAIL)
CONSTANT	8.920	0.172	0.000	51.832	0.000
VAR	-0.912	0.109	-0.771 .100E+01	-8.379	0.000

ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
REGRESSION	10.397	1	10.397	70.209	0.000
RESIDUAL	7.108	48	0.148		

(1991)

9300229

KRUSKAL-WALLIS ONE-WAY ANALYSIS OF VARIANCE FOR 50 CASES
DEPENDENT VARIABLE IS GLUMLENG
GROUPING VARIABLE IS VAR

GROUP	COUNT	RANK SUM
Boone	25	917.000
Pioneer 2553	25	358.000

MANN-WHITNEY U TEST STATISTIC = 592.000
PROBABILITY IS 0.000
CHI-SQUARE APPROXIMATION = 29.586 WITH 1 DF

One-Way Analysis of Variance for Glume Length

9300229

TOTAL OBSERVATIONS: 50

Boone vs. Pioneer 2553
(1992)

VAR GLUMLENG

N OF CASES	50	50
MINIMUM	1.000	6.800
MAXIMUM	2.000	9.300
MEAN	1.500	8.026
STANDARD DEV	0.505	0.659

THE FOLLOWING RESULTS ARE FOR:

VAR = 1.000 BOONE

TOTAL OBSERVATIONS: 25

VAR GLUMLENG

N OF CASES	25	25
MINIMUM	1.000	7.300
MAXIMUM	1.000	9.300
MEAN	1.000	8.500
STANDARD DEV	0.000	0.546

THE FOLLOWING RESULTS ARE FOR:

VAR = 2.000 PIONEER 2553

TOTAL OBSERVATIONS: 25

VAR GLUMLENG

N OF CASES	25	25
MINIMUM	2.000	6.800
MAXIMUM	2.000	8.100
MEAN	2.000	7.552
STANDARD DEV	0.000	0.347

DEP VAR:GLUMLENG N: 50 MULTIPLE R: 0.727 SQUARED MULTIPLE R: 0.528
 ADJUSTED SQUARED MULTIPLE R: 0.518 STANDARD ERROR OF ESTIMATE: 0.457

VARIABLE	COEFFICIENT	STD ERROR	STD COEF	TOLERANCE	T	P(2 TAIL)
CONSTANT	9.448	0.205	0.000	.	46.188	0.000
VAR	-0.948	0.129	-0.727	.100E+01	-7.328	0.000

ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
REGRESSION	11.234	1	11.234	53.695	0.000
RESIDUAL	10.042	48	0.209		

8

(1992)

9300229

KRUSKAL-WALLIS ONE-WAY ANALYSIS OF VARIANCE FOR 50 CASES
DEPENDENT VARIABLE IS GLUMLENG
GROUPING VARIABLE IS VAR

GROUP	COUNT	RANK SUM
Boone 1.000	25	902.500
Pioneer 2553 2.000	25	372.500

MANN-WHITNEY U TEST STATISTIC = 577.500
PROBABILITY IS 0.000
CHI-SQUARE APPROXIMATION = 26.622 WITH 1 DF

EXHIBIT D.**ADDITIONAL BOTANICAL DESCRIPTION OF BOONE**

Boone is a soft red winter wheat developed by AgriPro Biosciences Inc. This variety is a high yielding, medium height semidwarf with strong straw and midseason maturity. Boone provides good protection to Barley Yellow dwarf virus, Powdery mildew, Soilborne mosaic virus and the currently prevalent races of Leaf rust. Milling and baking properties are good.

Juvenile growth habit is semi-erect. Plant color at boot stage is green with an erect (to 90 degree angle from stem), twisted flag leaf. Auricle anthocyanin and auricle hairs are present. Anther color is purple. Waxy bloom is present on the head, flag leaf sheath and stem. Head shape is tapering, middense, awned and head color is white at maturity. Glumes are midlong and narrow with short acuminate beaks. Seed shape is elliptical with rounded cheeks and are not collared. Seed crease is narrow and depth is shallow.

Boone is well adapted to eastern Kansas, Missouri, Illinois, Indiana and Ohio.

EXHIBIT E.**STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP**

AgriPro Biosciences Inc. is the applicant for protection in this case being:

- a) The incorporated business (registered in Delaware) for and within which regular employees have bred the named variety.
- b) The proprietary owner and intending commercial user of the variety.

EXHIBIT F.**QUALITY AND AGRONOMIC DATA**

Quality Data	page 1.
Yield Trial Summary Data	page 2.& 3.
Agronomic & Pathologic Data	page 4.

ACRIPRO WHEAT
SOFT RED WINTER WHEAT

YEAR	VARIETY OR LINE	LOC	MILLING				BAKING				SCORES	
			WH PROT %	BRK FLR %	TOT FLR %	FL PROT %	C. DIAM mm	T.G R	NORRIS HARD	MILL BAKE		
	BOONE											
90	88M*2451	CA	9.1 0	50.5 1	68.5 2	7.8 9	17.8 1	4	25	5-A 15-C		
90	88M*2451	FO	11.5 0	40.6 6	66.9 3	9.4 1	17.2 1	3	16	12-B 6-A		
90	88M*2451	BK	11.4 0	44.3 4	67.7 4	10.1 1	18.0 2	4	22	12-B 9-A		
89	88M*2451	PA	10.6 0	49.8 2	72.0 1	9.0 1	18.0 1	2	31	4-A 5-A		
89	88M*2451	BK	9.0 0	44.6 3	66.4 2	7.1 5	18.8 2	2	19	7-A 11-B		
	AVERAGE		10.3 0	46.0 3	68.3 2	8.7 3	18.0 1	3	23	8-A 9-A		
90	CALDWELL	CA	10.4 0	45.3 4	66.4 4	9.2 3	17.6 1	4	29	12-B 9-A		
90	CALDWELL	FO	10.6 0	46.6 4	65.9 4	8.5 3	17.5 1	2	17	12-B 7-A		
90	CALDWELL	BK	10.2 0	45.8 3	68.2 4	9.0 3	17.6 1	2	21	11-B 7-A		
89	CALDWELL	PA	10.3 0	47.1 3	70.2 3	9.1 1	17.8 1	2	30	9-A 5-A		
89	CALDWELL	BK	9.3 0	41.7 5	65.6 3	7.3 5	18.7 1	2	17	11-B 9-A		
	AVERAGE		10.2 0	45.3 4	67.3 4	8.6 3	17.8 1	2	23	11-B 7-A		

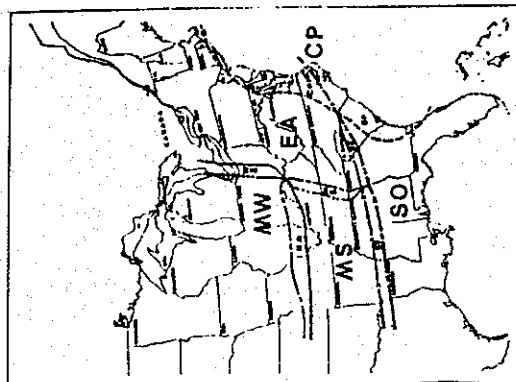
GRADES: A-EXCELLENT B-GOOD C-ACCEPTABLE D-QUESTIONABLE F-UNACCEPTABLE
R-RATINGS: 1-2=EXCELLENT 3-4=GOOD 5=ACCEPTABLE 6-7=QUESTIONABLE 8-9=UNACCEPTABLE

9300229

AgriPro Seeds
SOFT RED WINTER WHEAT TRIAL SUMMARY
OVER LOCATIONS-OVER YEARS
NOVEMBER 26, 1991

Boone
VARIETIES: ABI 88*2451 CARDINAL YEARS: 89 91

AREA		YIELD Bu/Ac		T.WT. lb/Bu		88 YIELD		89 YIELD		90 YIELD		91 YIELD	
LOCs	ABI 8 CARDI	LOCs	ABI 8 CARDI	LOCs	ABI 8 CARDI	LOCs	ABI 8 CARDI	LOCs	ABI 8 CARDI	LOCs	ABI 8 CARDI	LOCs	ABI 8 CARDI
REGIONS:													
CP	* 1 87.0 69.0	1	56.0 54.0			.0	.0	.0	.0	.0	.0	1	87.0 69.0
CP	* 1 87.0 69.0	1	56.0 54.0			.0	.0	.0	.0	.0	.0	1	87.0 69.0
EA	* 5 68.1 59.6	5	55.6 54.8			.0	.0	.0	.0	.0	.0	5	68.1 59.6
CP	* 1 87.0 69.0	1	56.0 54.0			.0	.0	.0	.0	.0	.0	1	87.0 69.0
ea	* 2 63.3 55.3	2	57.3 56.9			.0	.0	.0	.0	.0	.0	2	63.3 55.3
me	* 1 52.9 48.1	1	50.7 50.6			.0	.0	.0	.0	.0	.0	1	52.9 48.1
we	* 1 73.8 70.6	1	56.7 55.8			.0	.0	.0	.0	.0	.0	1	73.8 70.6
MS	* 10 41.7 36.6	6	49.3 49.1			.0	.0	1 61.0 58.0	.0	.0	.0	9	39.5 34.3
ms	* 5 34.4 27.6	4	47.7 47.8			.0	.0	.0	.0	.0	.0	5	34.4 27.6
me	* 1 52.9 48.1	1	50.7 50.6			.0	.0	.0	.0	.0	.0	1	52.9 48.1
mm	* 3 46.5 50.4	1	54.0 52.8			.0	.0	1 61.0 58.0	.0	.0	.0	2	39.3 46.7
ss	* 1 52.4 28.9	.0	.0			.0	.0	.0	.0	.0	.0	1	52.4 28.9
MW	* 29 59.8 57.2	14	54.7 54.8			.0	.0	7 77.4 68.6	.0	.0	.0	22	54.2 53.6
mw	* 25 60.8 57.5	12	54.6 54.9			.0	.0	6 80.2 70.3	.0	.0	.0	19	54.7 53.4
mm	* 3 46.5 50.4	1	54.0 52.8			.0	.0	1 61.0 58.0	.0	.0	.0	2	39.3 46.7
we	* 1 73.8 70.6	1	56.7 55.8			.0	.0	.0	.0	.0	.0	1	73.8 70.6
SO	* 4 28.1 15.5	2	47.0 41.5			.0	.0	.0	.0	.0	.0	4	28.1 15.5
so	* 3 20.0 11.0	2	47.0 41.5			.0	.0	.0	.0	.0	.0	3	20.0 11.0
ss	* 1 52.4 28.9	.0	.0			.0	.0	.0	.0	.0	.0	1	52.4 28.9
STATES:													
AR	* 3 28.5 20.8	2	45.8 45.4			.0	.0	.0	.0	.0	.0	3	28.5 20.8
GA	* 1 26.0 11.0	1	43.0 37.0			.0	.0	.0	.0	.0	.0	1	26.0 11.0
IL	* 7 61.5 56.3	4	54.4 55.0			.0	.0	2 83.5 68.0	.0	.0	.0	5	52.7 51.6
IN	* 12 60.2 60.2	5	55.1 54.6			.0	.0	4 77.5 71.5	.0	.0	.0	8	51.5 54.6
KS	* 1 68.6 58.2	1	55.0 54.0			.0	.0	.0	.0	.0	.0	1	68.6 58.2
KY	* 2 35.4 32.7	2	47.6 48.6			.0	.0	.0	.0	.0	.0	2	35.4 32.7
LA	* 1 11.0 .0	.0	.0			.0	.0	.0	.0	.0	.0	1	11.0 .0
MD	* 1 87.0 69.0	1	56.0 54.0			.0	.0	.0	.0	.0	.0	1	87.0 69.0
MI	* 2 66.4 68.7	2	56.5 57.7			.0	.0	.0	.0	.0	.0	2	66.4 68.7
MO	* 2 34.6 26.2	1	47.5 46.9			.0	.0	.0	.0	.0	.0	2	34.6 26.2
OH	* 5 63.8 58.7	2	56.3 56.1			.0	.0	1 65.0 58.0	.0	.0	.0	4	63.6 58.8
PA	* 1 84.0 59.0	1	60.1 59.2			.0	.0	.0	.0	.0	.0	1	84.0 59.0
TX	* 2 37.7 25.5	1	51.0 46.0			.0	.0	.0	.0	.0	.0	2	37.7 25.5
VA	* 1 42.6 51.5	1	54.5 54.5			.0	.0	.0	.0	.0	.0	1	42.6 51.5
WI	* 1 60.0 59.0	.0	.0			.0	.0	.0	.0	.0	.0	1	60.0 59.0
ALL		24	53.0 52.5										

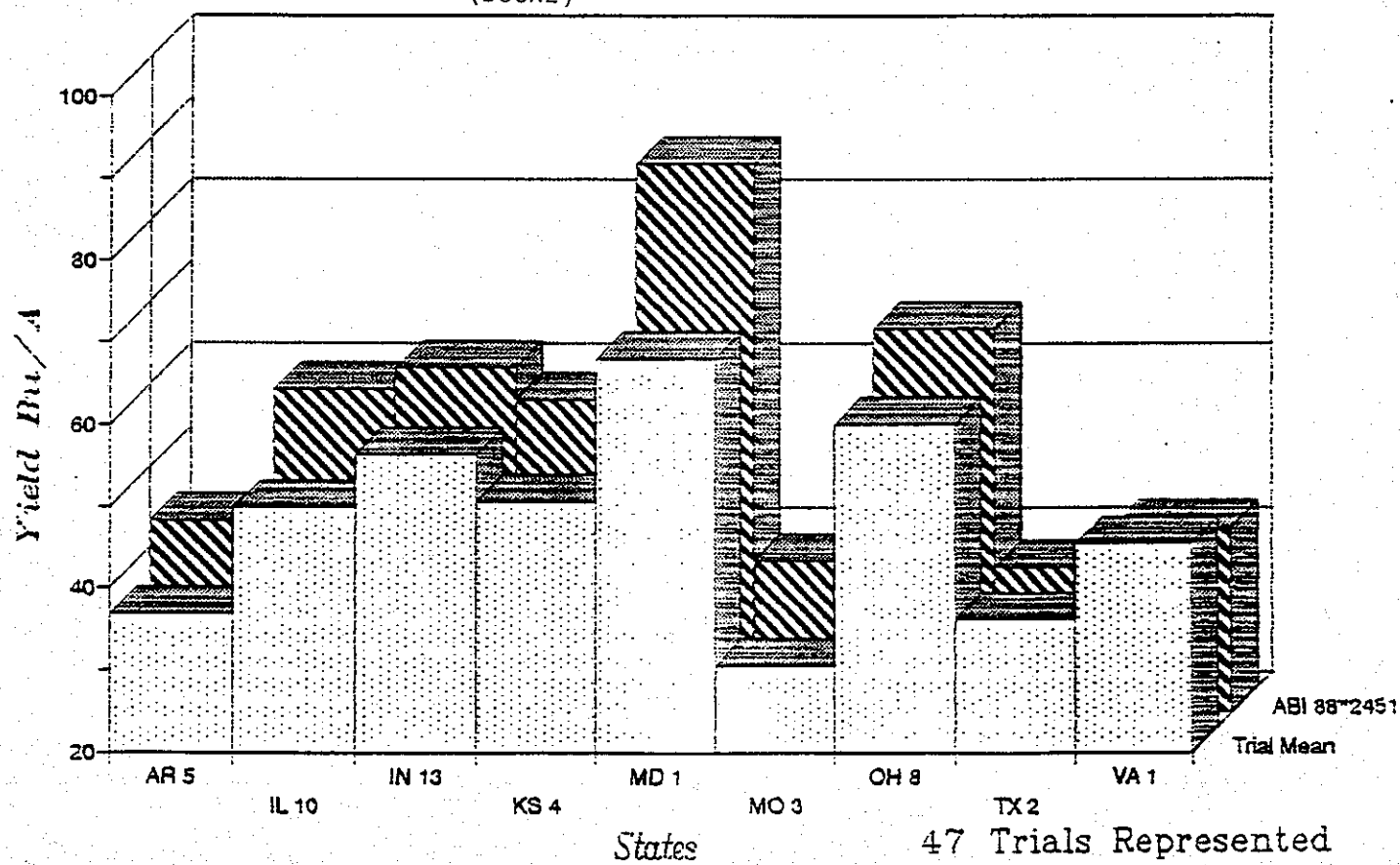


THIS DATA REPRESENTS ALL DATA AVAILABLE IN SRW REGION FROM PUBLIC AND PRIVATE TRIALS,
DATING BACK TO 1988

14

ABI 88*2451

ABI 88*2451 vs Trial Mean
(BOONE)



AGRONOMIC AND PATHOLOGIC DATA

VARIETY	HEADING DATE	HEIGHT in	LODGING	LEAF RUST	SEPTORIA NODRUM
ABI 88*2451	Boone 125	38	1.3	3.0	3.1
CARDINAL	129	40	2.0	2.0	4.0
CALDWELL	127	38	2.4	1.7	4.3

SEPTORIA POWDERY

	TRITICI	MILDEW	WSSMV	BYDV	SBMV
ABI 88*2451	Boone 7.0	4.0	5	2.3	2.5
CARDINAL	6.0	4.6	4	3.8	7.0
CALDWELL	7.0	5.4	8	2.8	6.0

BLACK

CHAFF

SCAB

ABI 88*2451	Boone 2.0	5.0
CARDINAL	4.0	3.0
CALDWELL	4.0	5.0

HEADING DATE = Days from Jan. 1.

All scores = 0-9, 9=worst

Data is summerized from 1991 UESWN and is
all northern data